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(56) Documents cited

**None**

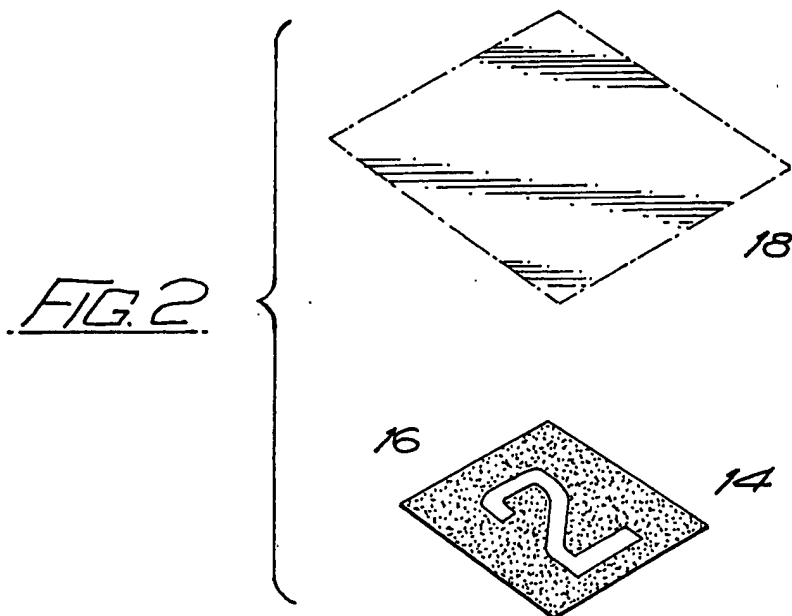
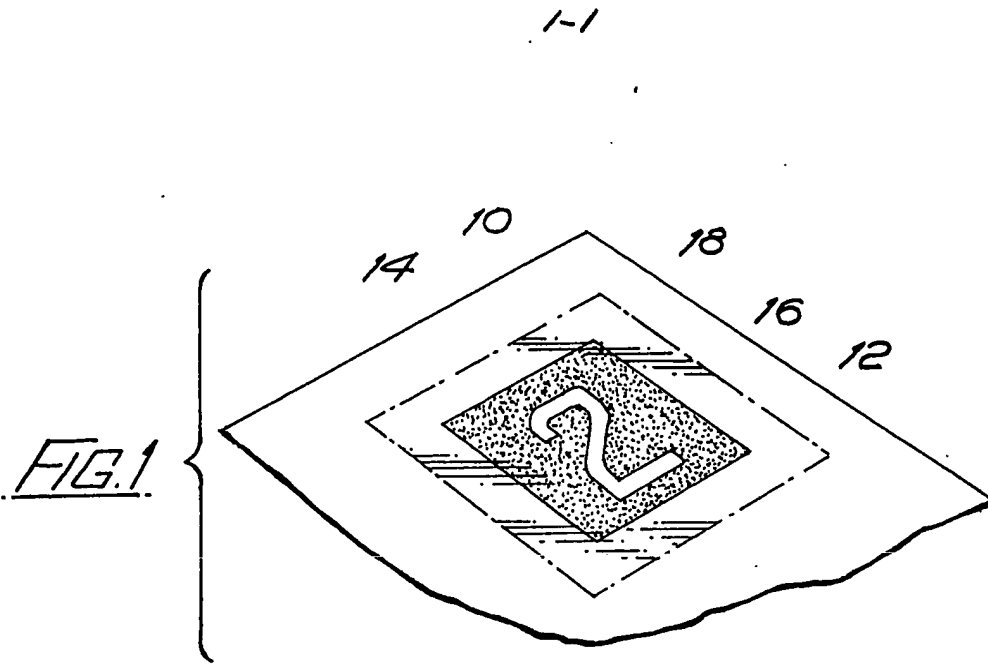
(58) Field of search

**B6A**

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**(54) Improvements relating to security printing**

(57) The invention provides a rub-off opaque coating system for tickets to conceal information on the tickets as a temporary measure, the intention being that the coating should be abraded by a coin or other implement to reveal the information in the use of the ticket. The coating comprises a film forming base material which may be a latex containing carbon black particles, and this is protected by a film forming lacquer such as a lacquer containing a silicone material, to prevent the removal of the base material from the ticket by means of adhesive tape.



## SPECIFICATION

## Improvements relating to security printing

5 This invention relates to the application of layers or coatings in security printing, and more particularly to the application of coatings of the type which are removable by irreversibly destroying the coating by a rubbing or scraping action. Such coatings will be referred to in this specification as "rub-off" coatings.

Rub-off coatings are used extensively in security printing of the type wherein the coating is used to conceal information, for example information on a lottery ticket, which is relevant to the lottery, the user of the ticket removing the coatings to display the concealed information (or the absence of it) to ascertain if the particular ticket is a winning ticket or not.

20 These rub-off coatings have application in relation to products other than lottery tickets, and one application comprises the utilization of rub-off coating for validation of tickets, such as parking tickets or public transport tickets, being of the type wherein the user of the ticket removes the coating or a certain section of the coating to display a right of presence, for example on a car park or on public transport vehicles.

Typically, a parking ticket useable in certain car parks in certain locations may comprise a base card, having a first plurality of areas having rub-off coatings thereon, representing the months of the year, and a second plurality of areas covered by rub-off coatings and representing the days of the month. Such tickets may be on general sale for example in newsagents, post offices and the like, and the user can use such a car parking ticket by displaying same in his car window after having rubbed away the rub-off coating representing the particular month and day on which the user has parked his car.

An attendant checking the tickets can tell at a glance if they have been properly used, and the purpose of using a rub-off coating is to prevent the ticket from being re-used for that particular day.

With the rub-off coatings which are currently available, a deficiency has been detected in that the coatings can be removed bodily, or sufficient of the coating can be removed bodily, by applying an adhesive tape such as Cellotape (Trade Mark) over the coating and suitable pressure over the coating area, so that by re-application of the coating, it is possible to revalidate the ticket after use. Such a practise would result in considerable loss to persons selling the tickets, and the present invention seeks to provide a coating system whereby this disadvantage is overcome.

According to the present invention, a rub-off coating system comprises a base layer of a film forming material which has the characteristic that it can be irreversibly destroyed by rubbing or scraping, and overlying the base layer is a protective layer which exhibits release characteristics preventing removal of the base layer by means of pressure application on adhesive tape, the com-

bined layers presenting sufficient opacity to provide a colour contrast with the background on which the layers are deposited.

The base layer preferably is a film forming composition such as a latex material containing finely divided particles rendering the opacity as referred to above, whilst the covering layer is preferably a lacquer or varnish containing release characteristic material such as silicone wax. The covering layer preferably also is film forming.

The particulate material contained in the base layer may be for example carbon black particles, and the base coating may be laid down with a reverse image therein to indicate the particular area covered by the coating, to facilitate the use of the article, in connection with which the coating system is used, and also to make the application of a substitute base layer after removal of same, extremely difficult.

The accompanying diagrammatic drawings illustrate the invention, and in the drawings:

*Figure 1* is a perspective view of a region of a parking ticket to which a rub-off coating according to the invention has been applied;

*Figure 2* shows the elements of the coating system in exploded perspective elevation.

Referring to the drawings, the base card 10 is covered in area 12 by means of a base coating 14 applied as described herein and in the quantity as described herein. The base coating is a latex film forming material with carbon black contained therein and therefore has a black appearance, and formed in reverse image in the coating is a character 16 to indicate the area to be removed to the user of the ticket.

The covering layer 18 is also a latex material provided with a release agent such as silicone wax, to give the overlying surface of the rub-off system a release characteristic such that adhesive tape will not anchor thereto when applied under pressure, whereby the only method of removing the rub-off system from the card will be by the required fashion which is to scrape or abrade the rub-off system by means of a coin or other implement.

The lacquer 18 which is used for the covering of the base layer 14 is of a type which anchors firmly to the card, and therefore the size of the lacquer coating is slightly larger than that of the base coating so that the marginal edges of the lacquer coating will anchor to the said card.

Instead of the colouring of the rub-off system being in the base layer, it could be in the covering layer, in which case the covering layer would anchor to the card through the reverse image 16, and upon abrading the rub-off system, there would be left on the card in the colour of the covering layer, an indication of the character 16.

## CLAIMS

1. A rub-off coating system comprising a base layer of a film forming material which is the characteristic that it can be irreversibly destroyed by rubbing or scraping, and overlying the base layer is a protective layer which exhibits release characteristics

teristics preventing removal of the base layer by means of pressure application on adhesive tape, the combined layers present sufficient opacity to provide a colour contrast with the background on which the layers are deposited.

2. A coating system according to Claim 1, wherein the base layer is a film forming composition such as a latex material containing finely divided particles providing the said opacity.
- 10 3. A covering system according to Claim 2, wherein the covering layer is a lacquer or varnish containing release characteristic material such as silicone wax.
4. A covering system according to Claim 3, wherein the covering layer is film forming.
- 15 5. A coating system according to Claim 2, wherein the particulate material contained in the base layer comprises carbon black particles.
6. A coating system according to any preceding Claim, wherein the base coating is laid down with a reverse image therein.
- 20 7. A coating system according to any preceding Claim, wherein the protective layer is of greater area than the base layer so that it contacts the background material and anchors thereto.
- 25 8. A coating system according to any preceding Claim when applied to a card or ticket forming the background.
9. A coating system substantially as hereinbefore described with reference to the accompanying drawings.
- 30 10. A ticket carrying a coating system according to Claim 9.